

## Contents of Applied Physics A 52

This listing presents the papers in alphabetical order of the first author, subdivided into the sections "Solids and Materials: Physical and Chemical Properties" and "Surfaces and Multilayers: Growth, Modification, and Integration". The Author Index that follows covers *Applied Physics A* and *B*, and is presented in tabular form. The names are listed in alphabetical order in the first column. The second and third columns contain the bibliographic data necessary to locate the paper. The issue is specified by the number separated from the volume number by a slash. The PACS numbers given in the fourth column may be used in conjunction with the PACS listing on the left to infer the topic of a paper.

### Solids and Materials

Ajiki K., Shimada D., Kido T., Miyakawa N., Tsuda N.: Tunneling conductance of a  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8\text{-SnO}_2$  junction along the c-axis. *Appl. Phys. A* 52/1, 1-6 (1991) PACS: 74.50 74.70

Al-Refaie S.N.: A generalized formula to determine the relaxation time distribution in dielectrics. *Appl. Phys. A* 52/4, 234-236 (1991) PACS: 73.40R 73.40 73.60

Bronold M., Pettenkofer C., Jaegermann W.: Alkali metal intercalation into  $\text{SnS}_2$ . UHV investigations of (0001)-surfaces. *Appl. Phys. A* 52/3, 171-179 (1991) PACS: 68.65 79.60

Catania M.F., Calcagno L., Coffa S., Campisano S.U., Raspagliesi M., Ferla G.: Compensating effects of platinum in n-and p-type silicon. *Appl. Phys. A* 52/2, 119-122 (1991) PACS: 66.30 72.80

Consolati G., Quasso F.: The experimental determination of the qPs contact density in matter. *Appl. Phys. A* 52/5, 295-298 (1991) PACS: 36.10 71.60 78.70

Dargys A., Zurauskas S., Zurauskiené N.: Transient tunneling spectroscopy (TTS) study of electron tunneling from phosphorous atoms in silicon. *Appl. Phys. A* 52/1, 13-18 (1991) PACS: 71.55 73.40 77.50

Giakoumakis G.E.: Matching factors for various light-source-photodetector combinations. *Appl. Phys. A* 52/1, 7-9 (1991) PACS: 78.55 78.60 42.80

Gibert J., Drube R., Dose V.: Critical point energies in hcp and fcc cobalt from appearance potential spectra. *Appl. Phys. A* 52/2, 167-170 (1991) PACS: 73.20A 73.20

Granqvist C.G.: Solar energy materials: Overview and some examples. *Appl. Phys. A* 52/2, 83-93 (1991) PACS: 01.30R 89.30 42.80 42.70

Groza A.D., Strizhevskii V.L.: P-polarized nonlinear surface polaritons near the surface of a saturable self-defocusing medium. Threshold case. *Appl. Phys. A* 52/3, 180-183 (1991) PACS: 42.65B 42.85

Hoheisel W., Vollmer M., Träger F.: Laser-stimulated desorption of potassium atoms. *Appl. Phys. A* 52/6, 445-447 (1991) PACS: 82.65 36.40 73.20

Ibrahim M.M., Wakkad M.M., Shokr E.Kh., Abd El-Ghani H.A.: Electrical properties of antimony telluride. *Appl. Phys. A* 52/4, 237-241 (1991) PACS: 2.20

JIANG Z., MA B.: Quasiperiodicity and chaos in the Gunn effect. *Appl. Phys. A* 52/1, 10-12 (1991) PACS: 72.20H 05.45

Korpiun P., Oslander R., Schmitt H., Micheler W.: Heat and mass transport in the photoacoustic effect on liquids. *Appl. Phys. A* 52/4, 223-233 (1991) PACS: 44.25 44.60 47.25

Kovács L., Moya E., Polgár K., López F.J., Zaldo C.: Photochromic behaviour of doped  $\text{Bi}_4\text{Ge}_3\text{O}_{12}$  single crystal scintillators. *Appl. Phys. A* 52/5, 307-312 (1991) PACS: 61.80 78.50 76.30

Liu J., Weppner W.: Limiting-current type surface modified gas sensor based on  $\text{Ba}^{\text{a}}\text{-alumina}$  fast solid ionic conductor. *Appl. Phys. A* 52/2, 94-99 (1991) PACS: 66.30 82.45 82.80 85.80

Lu H., Bao C.L., Xue Q.K., Tang D.S.: Clustering effect in crystallization process of a CuZr amorphous alloy. *Appl. Phys. A* 52/5, 302-306 (1991) PACS: 61.40 61.16 68.20

Mari B., Segura A., Casanovas A., Chevy A.: Deep-level transient spectroscopy measurement on tin-doped n-indium selenide. *Appl. Phys. A* 52/6, 373-379 (1991) PACS: 71.55

Marinelli M., Mercuri F., Zammit U., Pizzoferrato R.: The influence of the coupling fluids and of the pyroelectric transducer on low-temperature photopyroelectric studies. *Appl. Phys. A* 52/2, 115-118 (1991) PACS: 78.20H

Mitev A.P., Strashiov V.L., Burov J.I.: A direct method for measuring the temperature coefficients of bulk acoustic velocities in crystals. *Appl. Phys. A* 52/6, 369-372 (1991) PACS: 78.20H 62.65

Nikogosyan D.N.: Beta barium borate (BBO). A review of its properties and applications. *Appl. Phys. A* 52/6, 359-368 (1991) PACS: 42.65 77.90 78.20

Peralta S.B., Chen Z.H., Mandelis A.: Simultaneous measurement of thermal diffusivity, thermal conductivity and specific heat by impulse-response photopyroelectric spectrometry. *Appl. Phys. A* 52/5, 289-294 (1991) PACS: 78.20H 74.30

Petrocelli G., Scudieri F., Martellucci S.: Nonlinear absorption in ionic crystals determined by pulsed photothermal deflection. *Appl. Phys. A* 52/2, 123-128 (1991) PACS: 79.20D 78.20

Queisser H.-J.: Logarithmic hierarchy of universal dielectric response. *Appl. Phys. A* 52/4, 261-264 (1991) PACS: 77.40 05.60 72.15

Santoni A., Terminello L.J., Himpel F.J., Takahashi T.: Mapping the Fermi surface graphite with a display-type photoelectron spectrometer. *Appl. Phys. A* 52/5, 299-301 (1991) PACS: 79.60C 71.25

Schulz M., Karmann A.: Individual, attractive defect centers in the  $\text{SiO}_2\text{-Si}$  interface of  $\mu\text{m}$ -sized MOSFETs. *Appl. Phys. A* 52/2, 104-111 (1991) PACS: 73.40Q 73.20 71.20

Sharma S.C., Hozhabri N.: Two-dimensional melting of physisorbed submonolayers of argon and nitrogen. A positron annihilation study. *Appl. Phys. A* 52/4, 247-254 (1991) PACS: 78.70B 36.10 71.60

Slavov S.: Prediction of the frequency spectrum of AT-cut contoured quartz resonators by means of X-ray diffraction topography. *Appl. Phys. A* 52/3, 184-187 (1991) PACS: 62.00

Tendeloo G.van, Amelinckx S.: Long-period shear structure in lanthanum cuprate. *Appl. Phys. A* 52/5, 313-316 (1991) PACS: 61.14F 61.16 74.70

Thoma M.L., Weber C., Klingshirn C.: Spatio-temporal structure formation and self-diffraction in CdS using laser-induced thermal gratings. *Appl. Phys. A* 52/4, 255-260 (1991) PACS: 78.20N 42.65

Torres R., Francisco C.de, Munoz J.M.: Magnetic disaccommodation in normal spinel structures. *Appl. Phys. A* 52/4, 242-246 (1991) PACS: 75.60 76.00

Zammit U., Gasparrini F., Marinelli M., Pizzoferrato R., Scudieri F., Martellucci S.: Photothermal deflection spectroscopy study of defects in semi-insulating GaAs. *Appl. Phys. A* 52/2, 112-114 (1991) PACS: 78.20D 78.20 71.55

Zbinden H., Lüthy W., Weber H.P.: Explanation for TEM<sub>00</sub> operation of heavily doped  $\text{YAlO}_3\text{:Er}^{3+}$ . *Appl. Phys. A* 52/2, 100-103 (1991) PACS: 42.55R

ZHU M.: A study of the density of gap states in amorphous semiconductors from thermostimulated conductivity spectra. *Appl. Phys. A* 52/5, 285-288 (1991) PACS: 72.80N 71.20

### Surfaces and Multilayers

Afonso C.N., Serna R., Catalina F., Teixeira N., da Silva M.F., Soares J.C.: Laser-induced mixing and microstructures in GeAl thin multilayer films. *Appl. Phys. A* 52/1, 69-74 (1991) PACS: 66.30 78.90 81.30

Amato G., Benedetto G., Boarino L., Maringelli M., Spagnolo R.: Influence of substrate in photothermal measurements of thin film absorption. *Appl. Phys. A* 52/4, 280-284 (1991) PACS: 78.50G 78.65

Annino A., Lo Savio M., Oliveri M.E.: Spray method: Dependence of deposition efficiency on substrate temperature. *Appl. Phys. A* 52/1, 65-68 (1991) PACS: 81.15

Bagratashvili V.N., Banishev A.F., Gnedoy S.A., Emelyanov V.I., Jerikhin A.N., Merzljakov K.S., Panchenko V.Ya., Seminogov V.N.: The formation of periodic ring structures of relief and voids under laser vapor deposition of the metallic films. *Appl. Phys. A* 52/6, 438-444 (1991) PACS: 42.60 81.15 68.20

Bandhyopadhyay A.K., Bhattacharyya T.K., Banerjee R., Batabyal A.K., Barua A.K.: Study of hydrogenated amorphous silicon nitride films prepared by RF magnetron sputtering. *Appl. Phys. A* 52/5, 339-343 (1991) PACS: 81.15C 72.80

Brannon J.H., Scholl D., Kay E.: Ultraviolet photoablation of a plasma-synthesized fluorocarbon polymer. *Appl. Phys. A* 52/2, 160-166 (1991) PACS: 81.60J 78.65

Brook M.R., Grandberg K.I., Shafeev G.A.: Kinetics of laser-induced Au pyrolytic deposition from the liquid phase. *Appl. Phys. A* 52/1, 78-81 (1991) PACS: 42.55M 81.15 82.20

Chen X., Mazumder J., Purohit A.: Optical emission diagnostics of laser-induced plasma for diamond-like film deposition. *Appl. Phys. A* 52/5, 328-334 (1991) PACS: 81.60Z 81.15 33.00 52.00

Donath M., Scholl D., Siegmann H.C., Kay E.: Probing depth of the low energy cascade electrons from a transition metal. *Appl. Phys. A* 52/3, 206-209 (1991) PACS: 75.30P 79.20 75.70

El-Nahass M.M.: Optical properties of  $\text{CdIn}_2\text{Se}_4$  thin films. *Appl. Phys. A* 52/5, 353-357 (1991) PACS: 78.50

Fiebig K.A., Dormann E.: Dielectric and pyroelectret properties of Langmuir-Blodgett film capacitors. *Appl. Phys. A* 52/4 268-272 (1991) PACS: 77.55 77.70

Giakoumakis G.E., Katsaridi M.C., Panayiotakis G.S.: Modulation transfer function of thin transparent foils in radiographic cassettes. *Appl. Phys. A* 52/3, 210-212 (1991) PACS: 87.60J 87.70 78.55

Grosse P., Offermann V.: Analysis of reflectance data using the Kramers-Kronig relations. *Appl. Phys. A* 52/2, 138-144 (1991) PACS: 42.20 78.20 78.65

Hassel B.A.van, Burggraaf A.J.: Oxidation state of Fe and Ti ions implanted in yttria-stabilized zirconia studied by XPS. *Appl. Phys. A* 52/6, 410-417 (1991) PACS: 79.60E 61.70

Hontzopoulos E., Damigos E.: Excimer laser surface treatment of bulk ceramics. *Appl. Phys. A* 52/6, 421-424 (1991) PACS: 81.60D 61.80

Hu X.-H., Juhasz T., Bron W.E.: The temperature dependence of the resistive response of superconducting Pb films upon picosecond optical excitation. *Appl. Phys. A* 52/2, 155-159 (1991) PACS: 74.30G 73.60

Kabushemeye E., Meirhaeghe R.L.van, Laffière W.H., Cardon F.: A study of sputter-induced defects in magnetron-sputtered  $\text{CoSi}_2$  and  $\text{TiSi}_2$  Schottky barriers on n- and p-type GaP. *Appl. Phys. A* 52/1, 60-64 (1991) PACS: 73.30 61.70 81.15

Kakoschke R., Bussmann E., Föll H.: The appearance of spatially nonuniform temperature distributions during rapid thermal processing. *Appl. Phys. A* 52/1, 52-59 (1991) PACS: 81.40

Kalish R., Amir O., Brener R., Spits R.A., Derry T.E.: Incorporation of nitrogen into amorphous-hydrogenated carbon (diamond-like) films. *Appl. Phys. A* 52/1, 48-51 (1991) PACS: 61.70W 72.80 82.80 24.30

Kim H.-S., Lee C., Takai M., Namba S., Min S.-K.: Microprobe photoluminescence measurement on heteroepitaxial GaAs on Si grown by metalorganic chemical vapor deposition. *Appl. Phys. A* 52/3, 188-191 (1991) PACS: 78.65 81.10 81.15

Kolev K., Wautelet M.: Kinetics of cw laser-induced crystallization and oxidation of thin, Sb, Se and  $\text{Sb}_2\text{Se}_3$  films in air. *Appl. Phys. A* 52/3, 192-196 (1991) PACS: 68.55 81.40 61.80

Kumar A., Katyal O.P.: Thickness dependence of temperature coefficient of resistivity of polycrystalline bismuth films. *Appl. Phys. A* 52/4, 265-267 (1991) PACS: 73.60

Kuphal E.: Liquid phase epitaxy. *Appl. Phys. A* 52/6, 380-409 (1991) PACS: 81.10

Lerner C.M., Ma Y.P., Brooks J.S., Messervey R., Tedrow P.: Magnetoresistivity of bismuth films in magnetic fields to 19 tesla. *Appl. Phys. A* 52/6, 433-437 (1991) PACS: 75.30G

Lu Y.-F., Takai M., Nakata T., Nagatomo S., Namba S.: Laser-induced deposition of Ni lines on ferrite in  $\text{NiSO}_4$  aqueous solution. *Appl. Phys. A* 52/2, 129-134 (1991) PACS: 81.15 82.40

Milne R.H., Maydell E.A., Fabian D.J.: A comparison of ion-induced electron emission and secondary ion yields. *Appl. Phys. A* 52/3, 197-202 (1991) PACS: 79.20F 79.20

Pigram P.J., Lamb R.N., Wood B.J., Collins R.E.: Structure and surface composition of solar selective graded stainless steel/carbon cermet films. *Appl. Phys. A* 52/2, 145-150 (1991) PACS: 68.60 81.40

Ploog K., Fischer A., Tapfer L., Feuerbacher B.F.: Extremely narrow luminescence linewidth in GaAs single quantum wells by insertion of thin AlAs smoothing layers. *Appl. Phys. A* 52/2, 135-137 (1991) PACS: 68.55B 68.55 78.65

Przybylski M., Korecki J., Grädman U.: Magnetism of ultrathin Fe(110) films. *Appl. Phys. A* 52/1, 33-47 (1991) PACS: 75.30 75.70 76.80

Raud S., Chen J.-S., Niclou M.-A.: Preparation of high  $J_c$   $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  superconducting thin films by ion beam sputtering deposition. *Appl. Phys. A* 52/3, 203-205 (1991) PACS: 74.75 81.15

Rohrbeck W., Chilla E., Fröhlich H.-J., Riedel J.: Detection of surface acoustic waves by scanning tunneling microscopy. *Appl. Phys. A* 52/5, 344-347 (1991) PACS: 43.35 61.16 68.35

Sasaki Y.C., Hirokawa K.: Refracted X-ray fluorescence (RXF) on Si single crystal and GaAs. *Appl. Phys. A* 52/1, 28-32 (1991) PACS: 42.10F 07.60 78.70

Sigrist M.W., Tittel F.K.: Excimer laser processing of embedded fibers. *Appl. Phys. A* 52/6, 418-420 (1991) PACS: 42.60 79.20

Stitzl H., Krötz G., Müller G.: Autocompensation doping in light-soaked and in radiation-damaged a-Si:H. *Appl. Phys. A* 52/5, 335-338 (1991) PACS: 61.40 61.80 72.20

SUN W.: Interface of anodic sulfide-oxide on the n-type InSb. *Appl. Phys. A* 52/1, 75-77 (1991) PACS: 73.40Q 72.80 77.55

Tóth Z., Szörényi T.: Pulsed laser processing of Ge/Si thin film structures. *Appl. Phys. A* 52/4, 273-279 (1991) PACS: 42.60K 81.15

Vogt B., Stoppmanns P., Schmiedeskamp B., Heinemann U.: Au/Si(111) and the formation of silicides at the interface examined by spin-resolved photoemission. *Appl. Phys. A* 52/5, 323-327 (1991) PACS: 79.60

Wang Y., Bennema P., Schreurs L.W.M., Wnuk J., Linden P.van der: Crystal growth and surface morphology of Pb, Bi, Sr, Ca, Cu, O, high- $T_c$  superconductors. *Appl. Phys. A* 52/5, 348-352 (1991) PACS: 61.50 71.50 74.50

Welzenis R.G.van, Setten F.M.van, Schannen O.F.Z.: InSb/CdTe heterostructures grown by MBE. *Appl. Phys. A* 52/1, 19-27 (1991) PACS: 68.55

Wolf J.F., Ibach H.: Dislocations on Ag(111). *Appl. Phys. A* 52/3, 218-221 (1991) PACS: 61.70

Wurz P., Husinsky W., Betz G.: Cluster emission under ion bombardment of metallic targets. *Appl. Phys. A* 52/3, 213-217 (1991) PACS: 36.40

XIA Y., MEI L., TAN C., LIU X., WANG Q., YUE S.: Laser ablation of copper and aluminium in air. *Appl. Phys. A* 52/6, 425-432 (1991) PACS: 79.20D

Zhu X.D., Lee A., Wong A.: Detection of monolayer gratings of adsorbates by linear optical diffractions. *Appl. Phys. A* 52/5, 317-322 (1991) PACS: 78.65 07.60 68.35

